

# Put AI to work

Finance



IBM

# Contents

There's a unique opportunity for AI in the enterprise finance function. Despite finance's distinct restrictions and multiple overlapping responsibilities, bold firms have already realized ROI by applying AI solutions. We've learned from them to outline the why, what and how of getting real value from AI in finance.

01 →

Financial services  
in the age of AI

02 →

Why AI in finance matters

03 →

Put AI to work for  
financial services

04 →

Take the next step

05 →

Ready to begin?

# 01

## Financial services in the age of AI

With unique responsibility in every part of the business, as well as specific demands for dependability and accountability, finance pros are feeling squeezed from all directions. AI has the potential to change this status quo.

01

## Financial services in the age of AI

Today's CFOs and finance teams are facing challenges in multiple areas. To name a few, they need to drive digitization and make purchasing decisions for the entire enterprise. They're tasked with maximizing returns on digital investments. And they need to adapt the enterprise to changing customer spending habits.

CFOs surveyed rank the balance sheet as their top concern, but also face a triple squeeze of achieving profitable growth, managing inflation and navigating a talent shortage.<sup>1</sup>





Add these factors all together, and the task of a CFO can seem not only difficult, but impossible. And on top of it all, CFOs face specific challenges and expectations, even within the C-suite. Think about a few compliments you might hear about different C-suite executives:

- Our CEO is a real maverick.
- Our CTO encourages us to push the boundaries of what's possible.
- Our CMO changes the game by embracing disruptive technologies.

Are these examples still compliments that a CFO would like to hear?

CFOs are expected to be both innovative and stable; visionary and detail oriented. In short, where once CFOs reported on past activity and provided high-level strategic input, they're now expected to be very granular, weighing in at the tactical level. If you're a CFO today, everything is your problem.<sup>2</sup>

Generative AI (gen AI) offers finance teams a new tool for addressing this complex and challenging situation. It's clear that gen AI is going to have an impact in finance, as in virtually every enterprise function. This guidebook explores how CFOs can get the most from gen AI, including how to prepare for it, where to apply it and what they need to make it a valuable addition to their finance function.

# 02

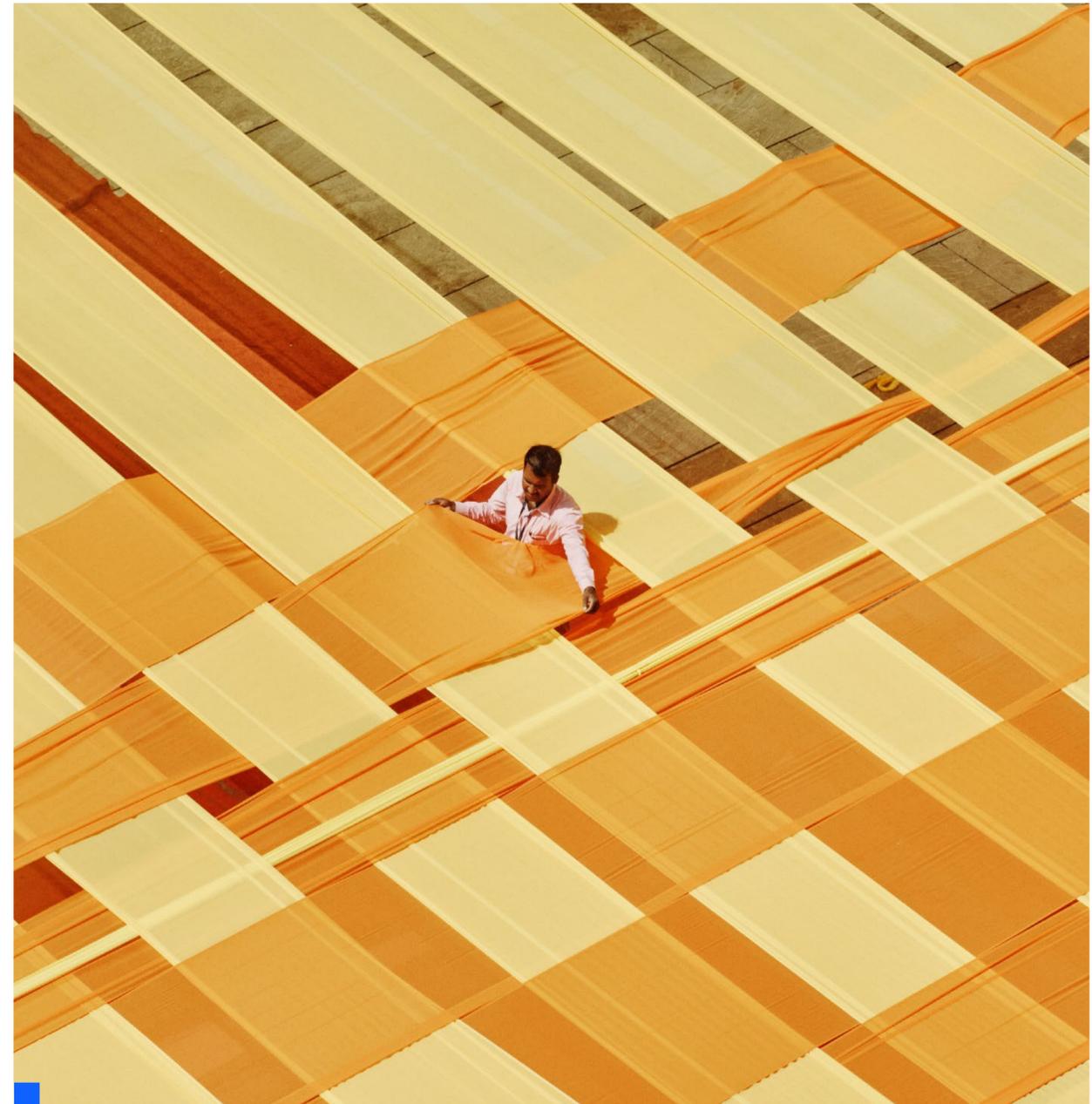
## Why AI in finance matters

Finance pros aren't used to going out on a limb. But there are many areas of finance where dependable automation and intelligent acceleration can really deliver value—and already has.

## Why AI in finance matters

CFOs have a particular remit and good reason to be cautious, particularly when embracing new technologies. Perhaps that's why most organizations have only adopted AI within 1 or 2 of the 4 key finance workflows as discussed on page 19.<sup>3</sup>

Nevertheless, there remain many areas in finance where quicker and more accurate ingestion of information can mean major productivity gains and avoidance of errors. Gen AI has the potential to be applied to these hard-to-automate areas, empowering faster and better data-driven decisions based on historical data, market trends and AI foundation models that identify patterns and anomalies often missed by traditional analysis methods.



At its core, AI technology can support finance professionals so they can focus on higher-value activities. And surveys show that AI adoption means better performance by the finance organization.

For example, a finance organization that effectively supports the enterprise as a whole is 6 times more likely to have mature AI adoption than simply piloting AI.<sup>3</sup> And for all 4 key finance processes, a significantly higher percentage of organizations that have implemented AI end to end with an IT strategy that integrates AI, cloud and app modernization have achieved top quartile ROI—more than 30%—compared to other organizations.<sup>3</sup>

Financial analysis and reporting teams have long made use of AI tools and will be one of the areas most impacted by gen AI, bringing self-service capabilities into many new realms of the business. There are text-based productivity use cases in several sectors where gen AI can be adopted now, and the benefits for mature AI adopters in finance are already significant. Benefits include 33% faster budget cycle time for planning and monthly close, a 43% reduction in uncollectible balances, and 25% lower cost per invoice paid.<sup>4</sup>

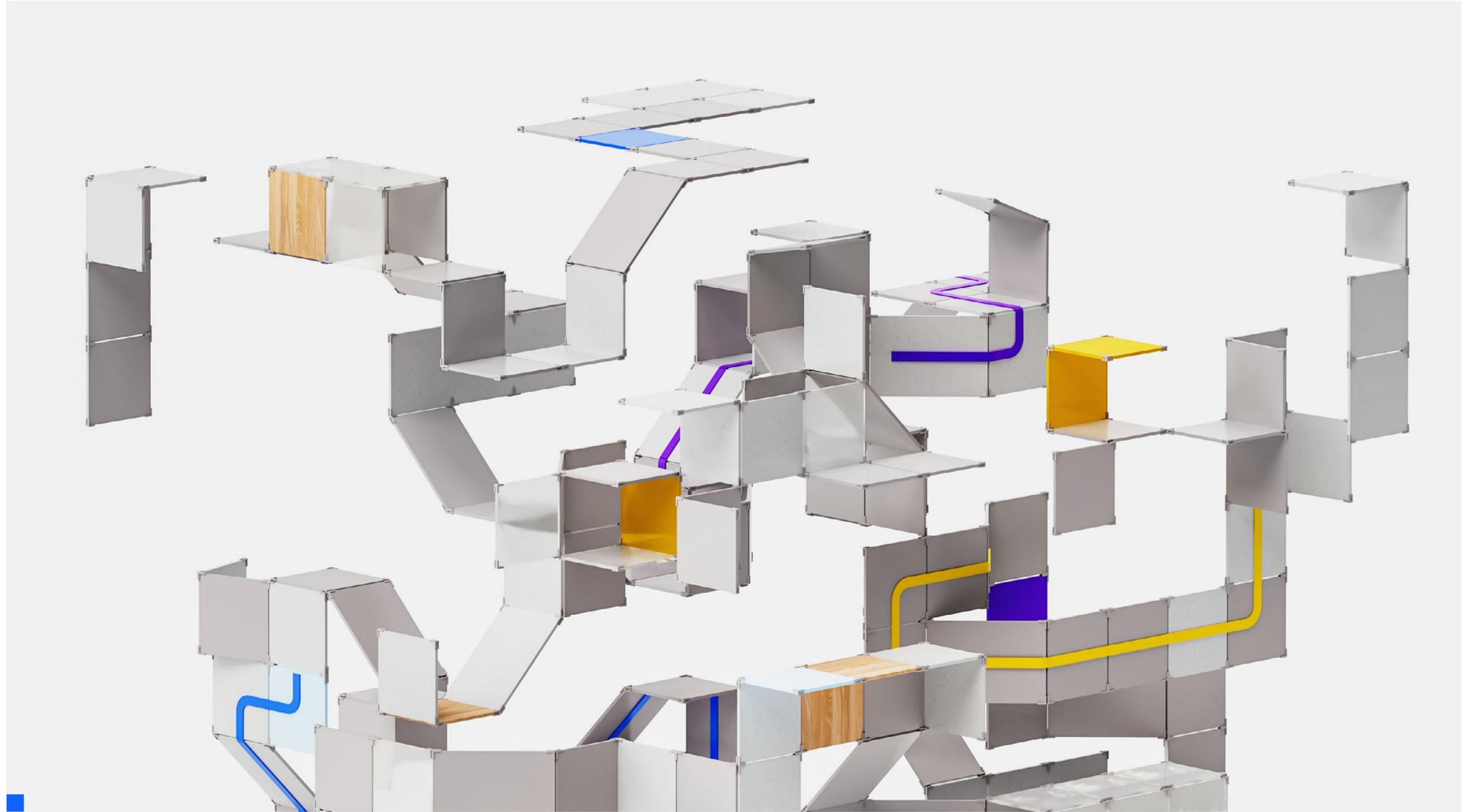
These benefits are so compelling that the opportunity cost of not adopting AI is significant. Organizations that adopt a wait-and-see approach risk rapidly falling behind.

The benefits are expected to compound as gen AI is applied to more ambitious use cases in areas, such as regulatory compliance, forecasting and designing new accrual methods. Recently, 600 surveyed global finance managers agreed that gen AI can expand the reach of AI in finance.

The potential is clearly there. But to be successful, finance leaders will need to get actively involved in the analysis process; weigh risks, materiality and potential financial exposures; and partner with other business units from the beginning.

## Scaling AI across the enterprise, safely

Despite the widespread enthusiasm for using gen AI for business, especially from board members and investors, many business leaders still have concerns about its adoption.



In a recent [study](#), the IBM Institute for Business Value found that responding executives have 4 top concerns about gen AI adoption.<sup>3</sup>

61%

have concerns about data lineage or provenance.

---

57%

have concerns about data security.

---

53%

have concerns about the constraints introduced by regulations and compliance.

---

45%

have concerns about data privacy.



How your organization succeeds with gen AI is influenced by how you select, govern, analyze and apply data across it. Huge volumes of data from different sources are used to train gen AI models, so, implementing governance, management and ethical frameworks that operate end to end is key if you wish to adopt AI safely and responsibly.

IBM has long followed core principles grounded in commitments to trust, transparency and fairness to guide how we handle client data and insights—and how we develop and deploy new technologies.

To continue this practice in the age of AI, IBM has developed a [multidisciplinary, multidimensional approach](#) that embeds ethical principles into AI applications and processes. With IBM's [Principles for Trust and Transparency](#) and [Pillars of Trust](#) as the foundation for our AI ethics initiatives, we're helping people and organizations adopt AI responsibly, and with clear purpose.

# IBM's guiding principles for AI ethics

## Principles for Trust and Transparency

**The purpose of AI is to augment human intelligence.**

We believe AI should make all of us better at our jobs, and the benefits of the AI era should touch the many, not just the elite few.

**Data and insights belong to their creator.**

Clients' data is their data, and their insights are their insights. We believe government data policies should be fair and equitable, prioritizing openness.

**Technology must be transparent and explainable.**

Companies must be clear about who trains their AI systems, what data is used and what goes into their algorithms' recommendations.

## Pillars of Trust

**Explainability**

Good design does not sacrifice transparency in creating a seamless experience.

**Fairness**

Properly calibrated, AI can assist humans in making fairer choices.

**Robustness**

As systems are employed to make crucial decisions, AI must be secure and robust.

**Transparency**

Transparency reinforces trust, and the best way to promote transparency is through disclosure.

**Privacy**

AI systems must prioritize and safeguard consumers' privacy and data rights.

In the past, enterprises have approached AI as an add-on, with the end goal being digital transformation.

Now, AI is becoming the centerpiece of business transformation—75% of business leaders surveyed believe competitive advantage will depend on who has the most advanced gen AI.<sup>4</sup> But harnessing the potential of AI to fundamentally transform finance requires a mix of vision and technology. Enterprises need to put AI to work at the strategic core of the business—not just add it on to existing systems—to solve challenges and help achieve their business objectives. It's time to move from +AI to AI+.

So, does this shift in technology mean you need to replace your traditional AI solutions with the latest gen AI for finance? IBM AI leaders say no.

Traditional AI models that use conventional machine learning (ML) and rules-based models have different capabilities and serve different functions: predictive analysis, security and compliance, automation, and more. Gen AI models, on the other hand, use [foundation models](#) to autonomously generate content based on the data they were trained on.



# The AI Ladder<sup>®</sup> in the modern day



Let AI help with the work



Replace your workflows



Automate your workflows



Add AI to your applications



Collect, organize, grow data

+AI



AI+

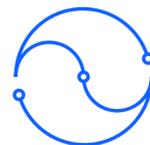
Gen AI and traditional AI are, in fact, complementary technologies; use them together to help accelerate and achieve your strategic goals.

# Traditional AI

Applies predefined rules and algorithms to specific sets of data to help solve problems, make predictions and automate tasks.

## Potential IT tasks using traditional AI

- Predictive maintenance
- Problem detection
- Incident response
- Service desk automation
- Process automation
- Intelligent workflows
- Capacity planning



# Generative AI

Uses both small language models (SLMs) and large language models (LLMs) to generate new content based on patterns learned from the data they were trained on.

## Potential IT tasks using gen AI

- Issue summarization
- Action recommendations
- In-depth conversation
- Code generation
- Insight extraction
- Classification
- Testing and debugging

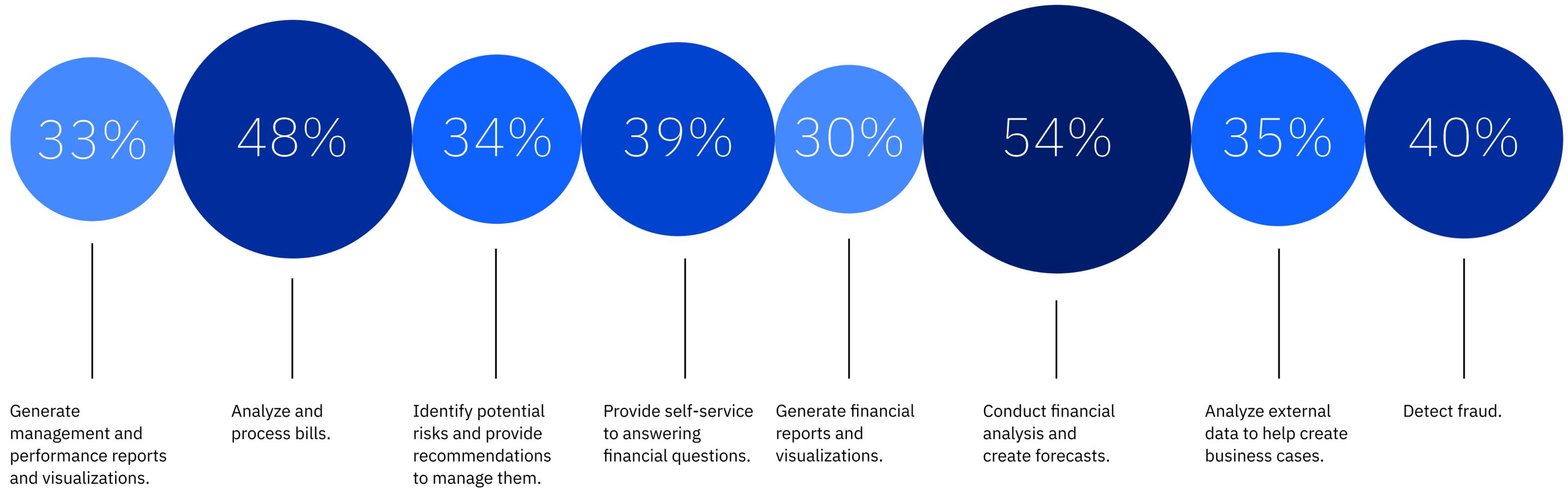


# O3

## Put AI to work for financial services

The 4 key finance workflows—O2C, FP&A, R2R and P2P—can each benefit in different ways from the addition of gen AI. Based on our experience with finance and AI transformation, here are the areas to focus on within each workflow.

Where finance managers see gen AI impacting financial processes<sup>3</sup>



Different finance workflows have different areas of applicability for gen AI. An experienced partner can help you identify areas where gen AI can have the most valuable impact and link together the technology pieces needed to support those use cases.

Based on IBM's experience through the whole combined ecosystem of finance and AI transformation services, the following are the applicable areas, key processes and benefits in each of the 4 key finance workflows.





## 1

**Order to cash (O2C)**

AI-driven innovations in O2C help with credit scoring, pricing decisions and the prevention of payment frauds. AI collects, prepares and distributes data from documents and unstructured data, surfacing insights at key moments to optimize decision-making and accuracy. In the key metric of uncollectable balances, half of AI adopters credit AI with a decrease of at least 2% and one-quarter credit AI with a decrease of at least 8%.<sup>4</sup>

## 2

**Financial planning and analysis (FP&A)**

AI and advanced analytics rank as key components of the FP&A process, galvanizing and orchestrating planning and performance management. AI can partially automate the labor-intensive process by parsing through data on the market, company performance, competitor information, pricing and operations. The AI model can identify anomalies, enhance forecasting, optimize pricing and provide recommendations, as well as apply trend analysis, correlation analysis—including pattern and anomaly detection—and neural networks for financial forecasting. With neural networks, AI determines the relationship among data and uses it to predict new data, resulting in higher forecast accuracy. When AI is used for market performance comparison, FP&A teams can factor in more variables and internal and external influences.

**Record to report (R2R)**

In the general accounting and reporting area, AI-powered workflow and data models could include a reconciliation module that helps users aggregate subledger transactions and perform risk-based reconciliations and cognitive forecasting.

**Procure to pay (P2P)**

An AI-powered workflow, underpinned by data models, optimizes touchless processing and provides a unified interface for buyers, suppliers, procurement and finance staff. Invoices are validated against business rules, coded and matched to the purchase order automatically. Spend and pricing intelligence provides insights during sourcing. AI automates procurement operations and manages inquiries from buyers and suppliers. Automating P2P with AI has been shown to increase productivity and permit finance to detect more fraudulent invoices.

**Key processes****O2C**

- Manage sales orders.
- Process customer credit.
- Invoice customers.
- Process accounts receivables.
- Manage and process collections.
- Manage and process adjustments and deductions.

**FP&A**

- Perform integrated financial planning.
- Perform planning and budgeting.
- Perform management and performance reporting.
- Perform forecasting and modeling.

**R2R**

- Process journal entries.
- Reconcile the general ledger.
- Post and reconcile intercompany transactions.
- Perform consolidations and process eliminations.
- Close the books.
- Perform fixed assets accounting.
- Perform financial reporting.

**P2P**

- Procure products and services.
- Process accounts payables.

**Benefits<sup>4</sup>**

- 43% reduction in uncontrollable balances
- 32% decrease in days sales outstanding (DSO)
- 28% decrease in the cycle time from transmission of invoice to receipt of payment

- 25% lower cost for planning, budgeting and forecasting
- 33% faster budget cycle time
- 4% higher overall forecast accuracy
- 57% lower sales forecast error

- 31% lower cost per journal entry
- 33% faster cycle time for the monthly close
- 2% more journal entries that are error free first time

- 25% lower cost per invoice paid
- 32% faster cycle time from receipt of invoice until approved and scheduled for payment
- 3% more purchase orders processed error free first time

■ To meet the demands of today's finance business leaders, organizations must be continuously innovating. But innovation doesn't happen in silos.

That's why IBM has significantly invested in elevating and supporting our business partners. We combine their industry domain expertise with our innovative solutions to better meet the needs of our clients. Our business partners are using gen AI to deliver turnkey solutions with the simple goal of making it easier for finance and accounting teams to report, plan and forecast. IBM Gold Partner, [Breakaway Technologies](#), provides an out-of-the-box solution for managed markets contract analysis, discount forecasting, and reserve reporting—this solution can help clients better predict and plan, while improving productivity.



04

## Take the next step

Once you understand what to do with gen AI, understanding how to do it is another thing entirely. We recommend focusing on these 3 tasks: defining the right business case, selecting high-value tasks for automation, and applying FinOps.

## Take the next step

As enterprises transition from the *hype* to the *how* of gen AI, it becomes even more critical to understand the costs of—and the value derived from—investments in the technology. CEOs and their CFOs know they need to tread carefully while adopting it, but they also feel the need to act fast. Still, according to an IBM Institute for Business Value study, 60% of organizations surveyed have not yet developed a consistent, enterprise-wide approach to gen AI.<sup>5</sup>

AI and gen AI initiatives can only be as successful as the underlying data permits, so enterprises undertake a variety of data initiatives to support their AI strategy, ranging from process mining to data governance. Respondents were asked “which initiatives has your finance organization undertaken to support its AI strategy?”

### Initiatives finance organizations have undertaken to support their AI strategy<sup>3</sup>

47%

used process mining to research how existing finance processes operate, where gaps exist and identify opportunities for AI.

46%

invested in governed data lakes.

45%

automated data acquisition for internal and external data.

44%

identified the structured and unstructured data that is needed to accomplish finance processes.

42%

standardized data preparation.

40%

installed data management solutions.

## 1

In addition, finance departments deploying AI should follow a structured approach to identify and assess potential risks:

- Comply with privacy and security regulations, policies and practices to ensure that data collection and usage practices meet requirements.
- Establish clear governance structures, including the definition of roles and responsibilities of all stakeholders involved in AI implementation.

But even as you lay this data, infrastructure and process groundwork, how can you be sure your approach to gen AI will accommodate organizational and technology changes?

Here's where you can benefit from a solid strategy based on experience drawn from thousands of successful AI engagements. We've provided 3 tested recommendations to get you started.

### Define a business case for your AI improvement initiatives.

This business case should include 3 justifications:

- Prioritize potential benefits and risks.
- Ensure that there's alignment with the broader strategy.
- Secure funding.

To quantify these justifications, you'll need to use project-specific, high-level operational and financial metrics that measure cost, speed and quality. Tracking and reporting the appropriate metrics is key to demonstrating the ROI from AI. The following are some examples.

**O2C** metrics include total cost, cost as a percent of revenue, payment processing time, collections efficiency, customer satisfaction, DSO, percent of invoices processed without error, average revenue per customer and delinquency rates.

**FP&A** metrics include margins, budget cycle time, accuracy of forecasts for sales and volume, and compliance.

**R2R** metrics include ROI, close cycle time, query response time, accuracy of financial statements, percent of manual journal entries, percent of error-free journal entries and the intercompany reconciliation rate.

**P2P** metrics include cost per invoice, working capital, cycle time to process an AP invoice, credit cycle time and percent of error-free purchase orders.

Finance leaders noted significant results against performance metrics, which improve over time.



“Before implementing [AI], we tracked KPIs, such as supplier lead time, purchase order cycle time and supplier quality ratings. After implementation, we saw significant improvements in these metrics, with a 20% reduction in supplier lead time, a 30% reduction in purchase order cycle time and a 15% improvement in supplier quality ratings.”<sup>5</sup>

#### Head of Finance

Retail, United States

IBM Business Partners are proactively working to help their clients improve their risk management processes. QuantumStreet, an IBM Business Partner that specializes in investment and wealth management, is embedding AI technology to improve the workflows of its investment managers:

“We at QuantumStreet AI are excited about expanding our use of Watson Discovery and Watson Studio into IBM’s foundation models watsonx.ai™ and watsonx.data™. These capabilities will allow nontechnical investment managers much needed access to AI/ML tools, enabling them to identify market opportunities and manage risk.”

**Chida Khatua**  
CEO of QuantumStreet

## 2

### **Attack labor-intensive tasks that are ripe for gen AI automation.**

Use gen AI tools that automate manual and mundane tasks. Focus on use cases that identify and mitigate risks before making investments that might impact core finance functions.

- Acknowledge the short-term limitations of gen AI while planning to capitalize on its full potential. While gen AI isn't proficient at numeric analysis yet, it likely will be soon. Develop value-adding use cases now to prepare for this future gen AI capability.
- Drive targeted gen AI adoption in day-to-day activities. Get individuals to use gen AI in specific daily tasks. Aligning gen AI adoption to real-world responsibilities will help overcome employee resistance and prove the value of this transformative technology.

IBM research shows that the finance areas poised to realize the greatest value from gen AI include predicting anomalies (47%), explaining variances (41%), generating scenarios (40%), creating reports (39%) and managing accounts—both payables (38%) and receivables (38%).<sup>5</sup> Potential use cases abound, but could include:

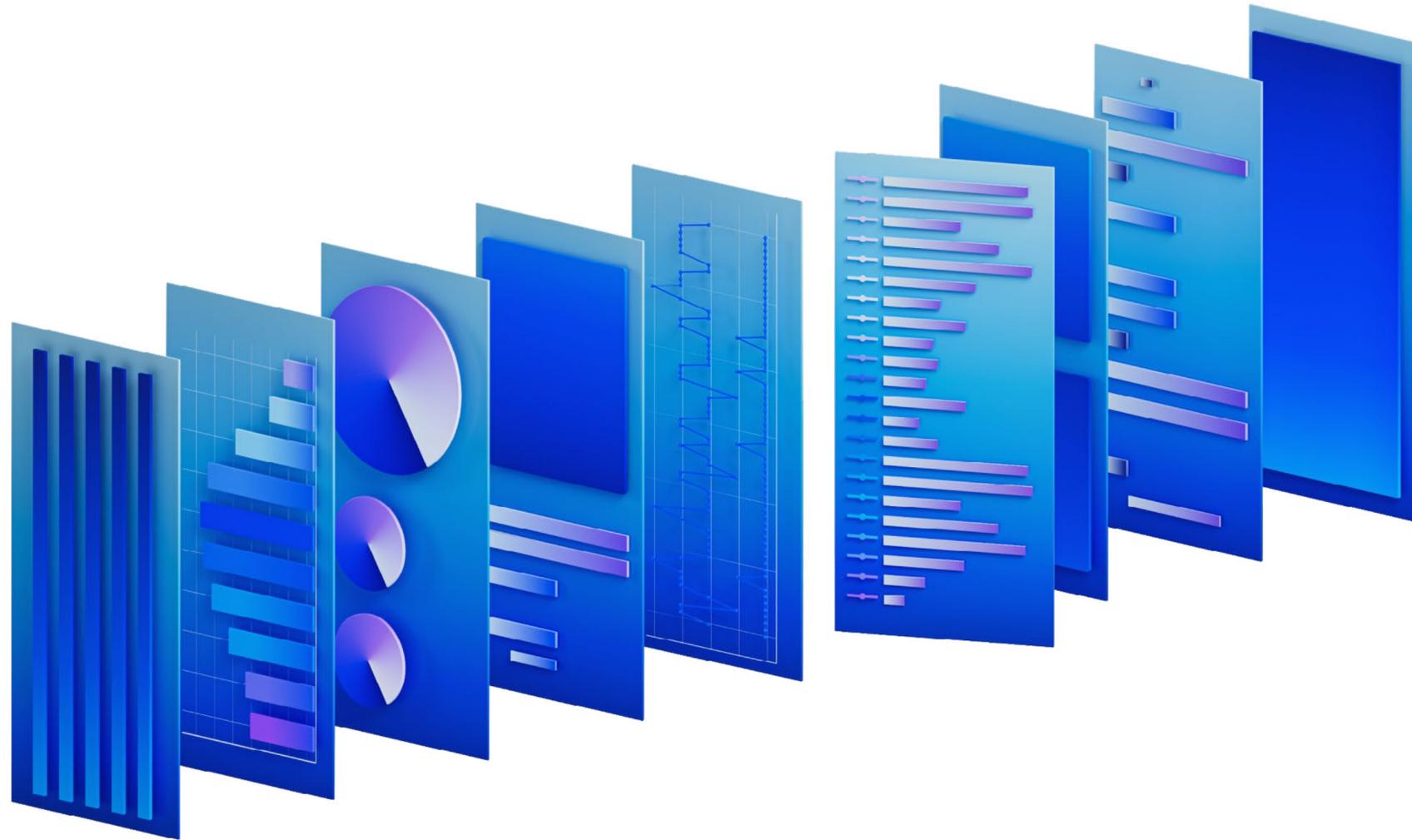
- Capture and leverage institutional knowledge such as recommending accounting treatments.
- Streamline audits by analyzing data to identify discrepancies and anomalies.
- Aid in contracts and negotiations by analyzing legal language to identify potential issues, risky clauses or opportunities for improvement.



“Purchase order processing time used to be 7 days and now it is done in hours.”<sup>5</sup>

#### **Head of Finance**

Automotive, United States



“The farther along organizations are in their AI journey, the more value is delivered. ... Organizations that have advanced to the optimization phase see [the highest] ROI.”<sup>6</sup>

51%

**Head of Finance**  
Automotive, United States

## 3

**Fine-tune your FinOps practices with gen AI and apply FinOps across the enterprise to make technology even more valuable.**

FinOps, or financial management for cloud-based investments, should play a big part in gen AI investment decisions. It increases visibility into cloud-related financial data, finding operational efficiencies and measuring returns. It formalizes and structures what might otherwise be a largely random process—and reduces the potential for unexplained cloud expenses.

Gen AI offers you an opportunity to improve value along 2 axes at once: fine-tuning FinOps with gen AI and applying FinOps across the enterprise. Gen AI can make FinOps more accurate and efficient, improving cost-benefit analyses and helping teams prioritize use cases.

- Apply FinOps practices to your gen AI investments by implementing a cost estimation and tracking framework that provides clarity on the costs of gen AI projects.
- Use gen AI to enhance FinOps capabilities. Simulate financial data and scenarios that can help increase the accuracy of financial models, improve risk management and support strategic decision-making.

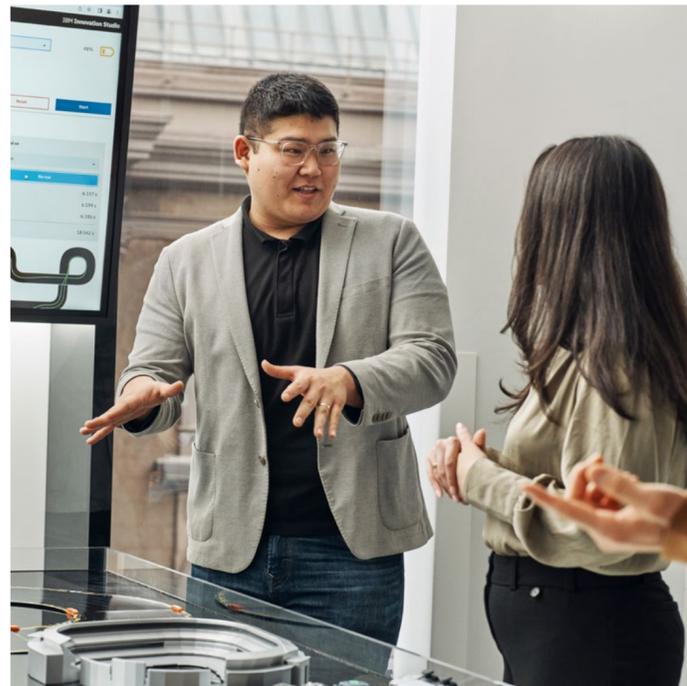
■ Most organizations that have activated a FinOps model using AI-powered software report cost savings greater than 20%.<sup>7</sup>

05

Ready  
to begin?

Now is the time to solidify competitive advantage by working with a partner that can help not just pilot and adopt but scale AI across the finance function.

The right partner can help, from financial planning through record to report, to optimize productivity and innovation while prioritizing compliance and governance.



### Join an IBM AI strategy briefing for finance

IBM has the technology and the consulting expertise to help you move forward quickly with AI.

In just a single 1–4-hour session you'll learn:

- How to adopt and scale AI safely yet efficiently across your enterprise
- How organizations such as yours are gaining business value from gen AI in priority use cases
- How IBM technology and consulting expertise is helping clients in industries such as yours transform with AI
- How to progress to a pilot

[Request to join→](#)

### AI expertise

[IBM Consulting®](#) can help you strategize, modernize, build and manage applications with the power of AI and hybrid cloud. IBM has formed a center of excellence (CoE) for gen AI, specialized in applying the IBM watsonx™ platform and IBM ecosystem partner technologies to rapidly create coherent strategies and accelerate how we solve business problems. The CoE complements more than 21,000 IBM data and AI consultants with a strong track record in AI who are already collaborating with thousands of global clients and partners to shape the future of AI.

### AI platform

[IBM watsonx](#) is our data and AI platform, native to hybrid cloud, that's designed to provide you with the ability to train, tune and deploy gen AI across your organization, using your critical, trusted data wherever it resides.

[IBM watsonx Orchestrate™](#)

[IBM Garage™](#)

To discover how IBM helps finance leaders deploy and scale AI confidently, visit [ibm.com/consulting/finance](https://ibm.com/consulting/finance).

[IBM Partner Plus](#) is an extensive partner network, backed by our AI and hybrid cloud solutions, armed to meet client demands for quick tech adaptation and deep understanding. We drive innovation and growth, solving complex challenges with speed and value.



1. [Understand Your Customer: Finance Leader Priorities](#), Gartner, March 2024.
2. According to Monica Proothi, Partner and Leader of Global Finance Transformation at IBM.
3. [Performance data and benchmarking](#), IBM Institute for Business Value, 2024.
4. [AI impact in finance benchmark report](#), IBM Institute for Business Value, January 2024.
5. [Insights into AI's impact on finance](#), IBM Institute for Business Value, February 2024.
6. [The CEO's guide to generative AI / Platforms, data, and governance](#), IBM Institute for Business Value, 12 September 2023.
7. [The CEO's guide to Generative AI / Finance](#), IBM Institute for Business Value, 2 April 2024.

© Copyright IBM Corporation 2024

IBM, the IBM logo, IBM Consulting, IBM Garage, IBM Partner Plus, IBM Watson, IBM watsonx, The AI Ladder, watsonx.ai, watsonx.data, and watsonx Orchestrate are trademarks or registered trademarks of International Business Machines Corporation, in the United States and/or other countries. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on [ibm.com/legal/copytrade](https://ibm.com/legal/copytrade).

This document is current as of the initial date of publication and may be changed by IBM at any time.

Not all offerings are available in every country in which IBM operates.

Examples presented as illustrative only. Actual results will vary based on client configurations and conditions and, therefore, generally expected results cannot be provided. THE INFORMATION IN THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

No IT system or product should be considered completely secure, and no single product, service or security measure can be completely effective in preventing improper use or access. IBM does not warrant that any systems, products or services are immune from, or will make your enterprise immune from, the malicious or illegal conduct of any party.

The client is responsible for ensuring compliance with all applicable laws and regulations. IBM does not provide legal advice nor represent or warrant that its services or products will ensure that the client is in compliance with any law or regulation.